



*Montana Department of Transportation
PO Box 201001
Helena, MT 59620-1001*

Memorandum

To: Scott Walter, P.E.
Bridge Area Engineer-Glendive

From: Jeff Jackson, P.E.
Geotechnical Operations Manager

Date: February 18, 2010

Subject: Supplemental 1, Geotechnical Engineering Structure Report (466)
Redstone E & W
STPP 22-1(5)15
UPN 02024

The Geotechnical Section requested revised loads for the bridges on the subject project based upon changes to the project alignment and grade since our original analyses and report were completed.

This request was to verify if the recommendations provided in our original 466 report dated January 11, 2006 were still valid due to any revisions to the design loading. Updated structural loads were provided via memorandum from the Bridge Bureau dated January 27, 2010. The lateral loading provided in this memo for the extreme limit case at the Eagle Creek Structure was verbally discussed with the Bridge Bureau and we understand the lateral load in the memo was reported in error and the correct lateral load should be 30 kips per pile. This load of 30 kips is also lower than the original lateral load presented in our 466 report.

Based upon our review of the revised loads, we now recommend a pipe pile wall thickness of 0.5 inch at the intermediate pier at Eagle Creek in lieu of our original recommendation of a 0.75 inch wall thickness at this location. Pile diameters, capacities during driving, and design tip elevations as recommended in our original 466 report are still adequate for both the Eagle Creek and Redstone Creek Structures.

Let us know if you have any questions or need additional information.

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Original: Geotechnical Project File

Copies: Ray Mengel, District Administrator - Glendive
Matt Strizich, P.E., Materials – Helena

